What is claimed is:

1.   A programmable remote device management system coupled to at least one
communication network switch over a computer network, the programmable remote
device management system comprising:

a command processing engine adapted to receive at least one switch command via
a user interface; and

a protocol translation engine coupled to the command processing engine, wherein
the command processing engine processes the at least one switch command for providing
at least one validated switch command to the network switch via the protocol translation
engine and the computer network to control predetermined attributes of the
communication network switch.

2.   The programmable remote device management system of claim 1, further
including a filtering engine coupled to the command processing engine and being
operative to interface to the communication network switch via the protocol translation
engine and the computer network for data mining at least one predetermined database
located on the communication network switch to collect predetermined switch
information.

3.   The programmable remote device management system of claim 1, further
including a scripting engine coupled to the command processing engine and being
responsive to receipt of the at least one validated switch command from the command
processing engine for executing at least one programming construct to provide
predetermined scripted commands to the communication network switch for further
controlling the predetermined attributes of the communication network switch.

4.   The programmable remote device management system of claim 3, wherein the
scripting engine includes an extendable scripting command language.

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5.   The programmable remote device management system of claim 3, wherein the scripting engine includes a predetermined scripting algorithm including at least one of TCL, Perl, Python, Ruby and BASH.

6.   The programmable remote device management system of claim 1, wherein the protocol translation engine is adapted translate the validated switch command to at least one of SNMP, RPC, SOAP, XML-RPC and CORBA.

7.   The programmable remote device management system of claim 1, including at least one of a personal computer, workstation, personal digital assistant and wireless communication device.

8.   A communication network switch adapted to receive at least one validated switch command over a computer network from a remote management device, the communication network switch comprising:

    a master agent in communication with the remote management device;

    a plurality of sub-agents in communication with the master agent; and

    a configuration controller in communication with each of the plurality of sub-agents; and

    a data communication scheduler in communication with the configuration controller, wherein the master agent is operative to receive and redirect at least a first validated switch command to a predefined one of the plurality of sub-agents for processing the first validated switch command to provide at least a first switch command and wherein the configuration controller receives and processes the first switch command to provide at least a first actuation signal to at least one interface port located on the network switch to actuate at least one element of the at least one interface port to a predetermined state for controlling predetermined equipment coupled to the at least one element of the at least one interface port.

9.   The communication network switch of claim 8, wherein the at least one element includes one or more switch ports.

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10.   The communication network switch of claim 8, wherein the master agent includes a task registration table adapted to be compared with the validated switch command to generate an identifier associated with at least one of the plurality of sub-agents responsible for processing the validated switch command.

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11.   The communication network switch of claim 10, wherein each of the plurality of sub-agents includes a MIB having a plurality of information related to attributes of the communication network switch.

10   12.   The communication network switch of claim 8, further including a local device management system coupled to the master agent and being operative to provide at least a second validated command to the master agent.

13.   The communication network switch of claim 8, wherein the local device
15   management system includes;
        a command processing engine;
        a local user interface coupled to the command processing engine; and
        a protocol translation engine coupled to the command processing engine, wherein the command processing engine is adapted to receive at least one switch command via
20   the local user interface and to process the at least one switch command for providing at least the second validated switch command.

14.   The communication network switch of claim 13, further including a filtering engine coupled to the command processing engine and being operative to interface to the
25   master agent for data mining the task registration table located on the master agent to collect predetermined switch information.

15.   The communication network switch of claim 14, further including a scripting engine coupled to the command processing engine and being responsive to receipt of the
30   second validated switch command from the command processing engine for executing at

least one programming construct to provide predetermined scripted commands to the master agent to control predetermined attributes of the network switch.

16.   The communication network switch of claim 15, wherein the scripting engine includes an extendable scripting command language.

17.   The communication network switch of claim 15, wherein the scripting engine includes at least one of TCL, Perl, Python, Ruby and BASH.

18.   The communication network switch of claim 13, wherein the protocol translation engine is adapted translate the validated switch command to at least one of SNMP, RPC, SOAP, XML-RPC and CORBA.

19.   A method of operating a programmable remote device management system coupled to at least one communication network switch over a computer network, the method comprising:

        receiving at least one switch command at a command processing engine located on the remote device management system;

        processing the at least one switch command at the command processing engine for providing at least one validated switch command;

        receiving and processing the validated switch command at a protocol translation engine located on the remote device management system for providing the at least one validated switch command in a predetermined protocol; and

        providing the at least one validated switch command in the predetermined protocol to the network switch via the computer network, wherein the network switch executes the at least one validated switch command in the predetermined protocol for controlling predetermined attributes of the communication network switch.

20.   The method of claim 19, wherein controlling the predetermined attributes of the communication network switch includes actuating one or more ports located on the communication network switch for controlling a plurality of equipment coupled to the

one or more ports.